EAST-WEST PLANNING STUDY PHASE I SUMMARY

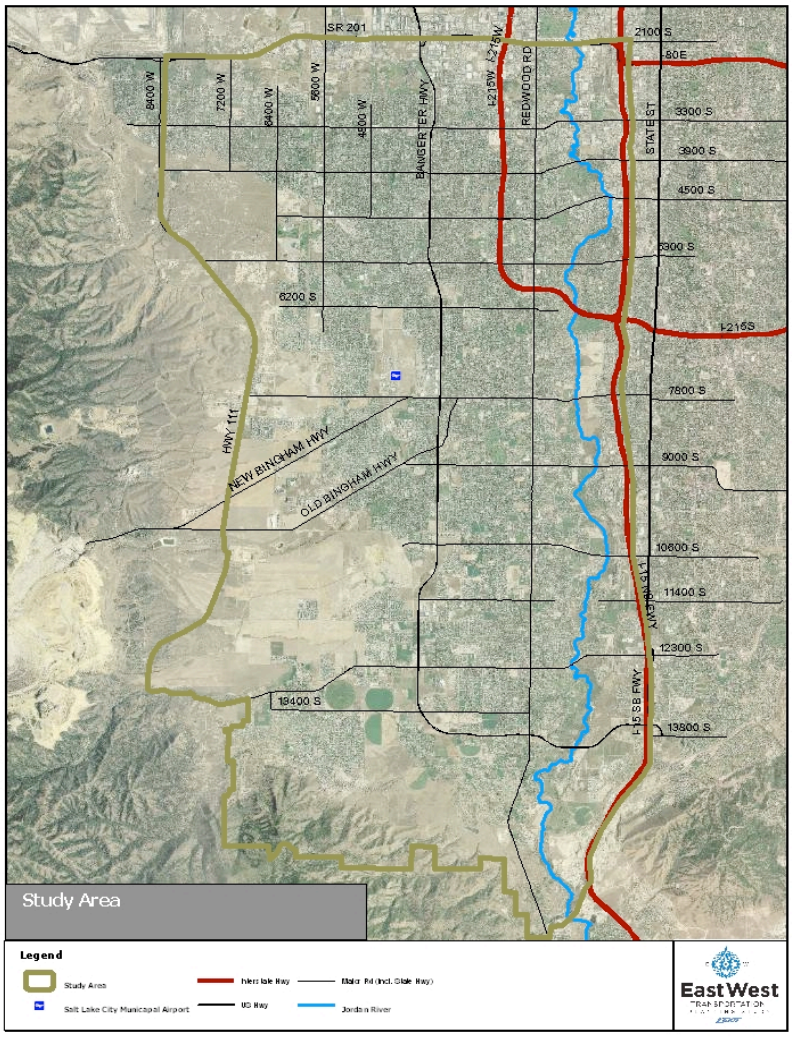
The East-West Planning Study objective stems from Utah House Bill 108, Section 1, (1), which requires UDOT to study the need for east-west transportation improvements in Salt Lake County for the area depicted in Figure S1. Because of Kennecott's anticipated population growth and its subsequent influence on traffic patterns within the study area, particularly the east-west movements, a planning area was created that includes both the study area and Kennecott land west of SR-111. While the planning area will be included in our analysis to assess impacts to traffic patterns within the study area, the plan will not make any recommendations for transportation improvements west of SR-111. The East-West Planning Study will focus on three primary goals that will be executed in a series of three phases. The goals of the project include:

(i) Determine and document the current and future transportation needs within the study area. ***(Phase I)***

(ii) Identify and evaluate possible transportation system improvements to satisfy the needs. ***(Phase II)***

(iii) Suggest an implementation schedule for the recommended transportation system improvements. ***(Phase III)***

FIGURE S1. STUDY AREA AND 2005 ROADWAY



The following is a summary of assumptions and findings by topic for Phase I.

Current and Future Demographics Conditions

- In 2005 the planning area population was approximately 465,400, with approximately 131,700 households, and 177,300 employees.
- To establish the planning areas 2030 base socioeconomic data two data sets were used. For the area east of SR-111, the WFRC adopted socioeconomic data was utilized; for the area west of SR-111, Kennecott's projected growth data was used.
- The 2030 Beyond scenario was created to depict a timeframe

beyond 2030 that was not restricted by WFRC constraints. To establish the 2030 Beyond socioeconomic data for the planning area information was collected from various stakeholders and representatives of local jurisdictions.

- Table S1 summarizes the anticipated socioeconomic changes for the planning area between the years 2005, 2030 and 2030 Beyond. The highlights of the findings include an estimated 125% increase in population, 113% increase in employment and 159% increase in number of households. The majority of this increase is expected to occur throughout the study area with heavier emphasis in the Northern portion.

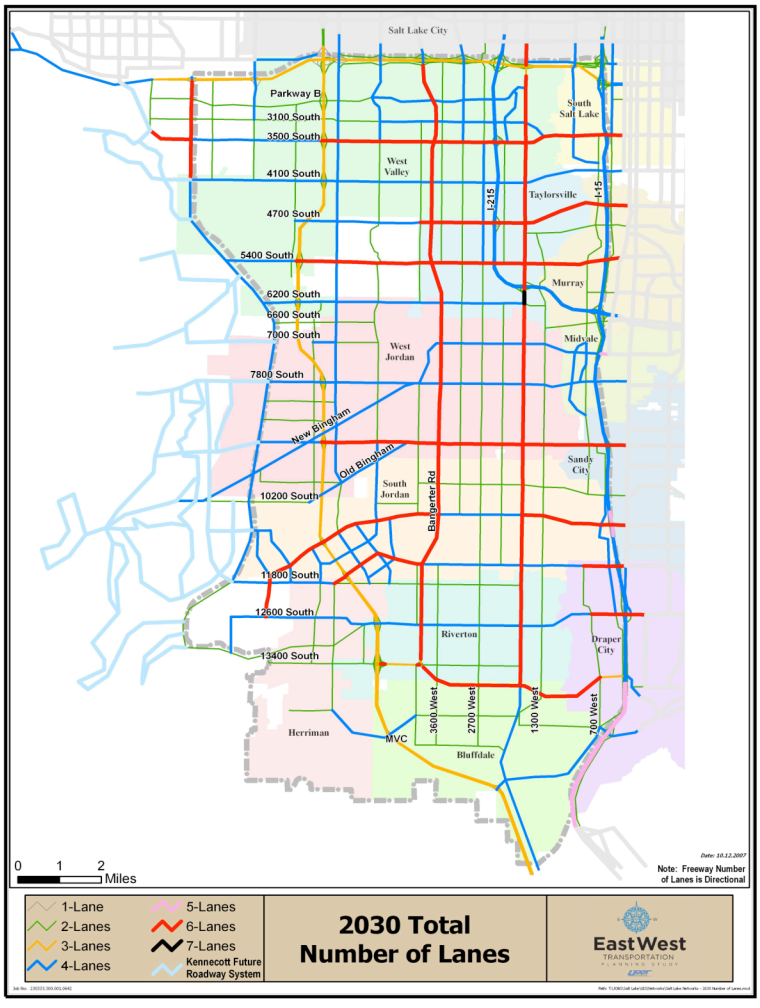
TABLE S1. POPULATION GROWTH COMPARISON

Planning Area	2005 Population	2030 Population	2005-2030 % Growth	2030 Beyond Population	2030-2030 Beyon % Growth
	465,393	806,390	73.27%	1,041,335	29%

Current and Future Roadways

Figure S1 illustrates the roadway system considered for the 2005 conditions. Figure S2 displays the roadway system for the 2030 and 2030 Beyond scenario, with the respective number of lanes. It should be noted that Figure S2 is comprised of all the WFRC recently approved Long Range Transportation Plan (LRTP) improvements east of SR-111 as well as the preliminary Kennecott potential future roadway system west of SR-111, as of July 2007.

FIGURE S2. 2030 ROADWAY SYSTEM



Future Traffic Assumptions and Conditions

The 2030 roadway system together with the 2030 Beyond socioeconomic data was used to identify future needs in the study area.

The WFRC travel demand model was modified to include the refined Kennecott growth area west of SR-111 and was used to identify anticipated future traffic volumes.

Locations on major east-west routes and on major north-south routes in the study area were identified to quantify travel demand

and for comparison purposes.

The following are the major traffic mobility findings in the study area.

- The 2030 Beyond total daily traffic volumes traveling on north-south facilities are approximately two to five times greater than the ones observed in 2005. This increase is primarily due to the presence of the Mountain View freeway being included in the 2030 roadway system.
- The 2030 Beyond total daily traffic volumes traveling on east-west facilities are approximately two to three times greater than the ones observed in 2005. This increase is likely due to the population increase occurring west of SR-111 from Kennecott development.
- Daily Vehicle Miles Traveled (VMT) and Vehicle Hour Traveled (VHT) in the study area will increase by approximately 300% from 2005 to 2030 Beyond. This increase translates in longer trip lengths and more time spent in the vehicle.
- Twenty-one percent of the east-west facilities were considered to be highly congested in 2005, while 48% of the east-west facilities are projected to be highly congested beyond 2030. Highly congested urban arterials usually exhibit a level of service between E and F. *
- Nineteen percent of the north-south facilities were considered to be highly congested in 2005, while 50% of the north-south facilities are projected to be highly congested beyond 2030.
- Overall, the travel time along specific major routes in the study area will almost double between 2005 and 2030 and Beyond. This increase of congestion and travel time is projected to occur even when all planned improvements featured in the adopted WFRC LRTP are accounted for. In order to address these future travel demand conditions additional traffic mobility improvements and/or strategies are needed.

* Highly congested urban arterials usually exhibit a level of service between E and F and the figure below provides a depiction of such a measure.